Notice of Allowability	Application No.	Applicant(s)	
	10/525,248	HIRAI ET AL.	
	Examiner	Art Unit	
	Faye Boosalis	2884	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *submission of 23 August 2006*.

2. ☒ The allowed claim(s) is/are *2-20*.

3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☒ All b) ☐ Some* c) ☐ None of the:
      1. ☒ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

EXAMINER'S STATEMENT OF REASONS FOR ALLOWANCE

Comment on Submissions

1. This communication is responsive to submissions 23 August 2006.

Allowable Subject Matter

2. Claims 2-20 are allowed.

3. The following is an examiner's statement of reasons for allowance:

Regarding independent claim 2, prior art does not disclose or fairly suggest a radiation detector comprising radiation detecting element, disposed between the distal end of the radiation probe and the light emitting device, wherein the radiation detecting element comprises a second window for transmitting pointer light to pass the pointer light through the second window and then the first window to be emitted from the radiation detection probe.

The examiner notes that while it is known in the art for a radiation detector (10) comprising: a main body (50); and a radiation detection probe (20) connected to the main body (See Fig. 1 and col. 5, lines 13-15), the radiation detection probe including: a radiation detection element (160) for detecting radiation transmitting through the distal end (130) of the radiation detection probe (see for example *Raylman et al -- US 6,236,880 B1* -- Fig. 2 and col. 7, lines 18-25 and 37-41) and a radiation detector probe comprising: a light-emitting diode (92) for emitting light toward distal end of radiation detection probe and a first window (28) provided on the distal end of the radiation probe to transmit light (see for example *Carroll et al -- US 4,959,547* -- Fig. 3 and col. 9, lines 25-40), the prior art does not suggest the radiation detection element (i.e. plurality of

element pieces surrounding second window), arranged between the distal end of the detection probe and the LED, comprising a second window wherein pointer light passes through the second window and then the first window to be emitted from the radiation detection probe.

Regarding independent claim 11, prior art does not disclose or fairly suggest a radiation detector comprising: a radiation detection element, wherein the radiation detection element including an input plate on the distal end of the detection probe wherein the first window is a through-hole provided in the input plate designed for the input plate to block an electromagnetic wave having an energy of 1 keV or less.

The examiner notes that while it is known in the art for a radiation detector (10) comprising: a main body (50); and a radiation detection probe (20) connected to the main body (See Fig. 1 and col. 5, lines 13-15), the radiation detection probe including: a radiation detection element (160) for detecting radiation transmitting through the distal end (130) of the radiation detection probe (see for example *Raylman et al -- US 6,236,880 B1* -- Fig. 2 and col. 7, lines 18-25 and 37-41) and a radiation detector probe comprising: a light-emitting diode (92) for emitting light toward distal end of radiation detection probe and a first window (28) provided on the distal end of the radiation probe to transmit light (see for example *Carroll et al -- US 4,959,547* -- Fig. 3 and col. 9, lines 25-40), the prior art does not suggest a radiation detector wherein an input plate, the first window is a through-hole in the input plate, blocks an electromagnetic wave having an energy of 1 keV or less.

The remaining claims 3-10 and 12-20 are allowable based on its dependency.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Faye Boosalis whose telephone number is 571-272-2447. The examiner can normally be reached on Monday thru Friday from 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

FB

DAVID PORTA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800